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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/677,535	10/03/2003	Hideaki Watanabe	8038-1044	9332
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EXAMINER

DI GRAZIO, JEANNE A

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/677,535	Applicant(s) WATANABE, HIDEAKI	
	Examiner Jeanne A. Di Grazio	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date August 20, 2004.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Priority to Japanese Patent Application No. 2002-291199 (Oct. 3, 2002) is claimed.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The Examiner acknowledges with appreciation Applicant's English translation of the Taiwanese Patent No. 454115 submitted as a Supplemental Information Disclosure Statement in paper dated August 27, 2004.

Specification

The disclosure is objected to because of the following informalities:

The Examiner respectfully wishes to bring to Applicant's attention the following minor informality. At page 19 of the Specification, Applicant discusses Figure 2 and notes that the flexible substrates are in an extended state as shown in Figure 15 (Specification page 19, lines 7-10).

However, Figure 2 refers to an exploded perspective view of the LCD monitor of a first embodiment of Applicant's invention. Figure 15, on the other hand, is a conventional LCD device. It seems confusing to relate a first embodiment figure with a conventional figure. Perhaps Applicant meant to refer to another figure instead of Figure 15.

Appropriate correction is required.

Claim Objections

Claim 3 is objected to because of the following informalities:

With regard to claim 3, Applicant recites that “said rear housing member is swiveled with respect to said front housing member to cover said lateral and rear sides of said backlight and said panel unit.”

Such a limitation is not clear to the Examiner because if the rear housing member is swiveled with respect to the front housing member than it seems as if the housing members would be offset from each other and thus unable to cover lateral and rear sides of the backlight and panel unit.

Because Kim (applied art – see Rejection below) teaches housing members akin to those of Applicant’s, then the Examiner presumes that the limitation recited in claim 3 is also met by Kim.

Appropriate correction is required.

Claim 6 is objected to because of the following informalities:

As to claim 6, the recitation “said coupling member is formed as a separate piece attached to said front and rear housing members” is unclear to the Examiner because if the coupling member is a separate piece then it cannot be attached to the front and rear housings. Once attached, it is no longer a separate piece.

Art Unit: 2871

For examination purposes, the Examiner presumes that such limitation is met by the current art of record.

Appropriate correction is required.

Claim 11 is objected to because of the following informalities:

As to claim 11, Applicant recites that “said pivotal axis (of the coupling structure) is formed as an integral part of said one of said front and rear housing members.”

Such a limitation is not clear to the Examiner because an axis is something intangible and cannot be said to form an integral part of another structure.

For examination purposes, the Examiner presumes that such limitation is met by the current art of record.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA Figures 11-21 identified as PRIOR ART) in view of United States Patent 6,512,558 B2 (to Kim).

Art Unit: 2871

As to claim 1, Applicant's Admitted Prior Art (APA) discloses that the conventional LCD device has a backlight unit and panel unit formed as an integrated LCD unit (Specification at page 8, lines 9-12). APA also discloses that the panel unit includes a driver IC for driving the LCD panel (Specification at page 1, lines 15-17) and a backlight unit that generally includes a lens sheet, optical guide plate and reflection sheet which are arranged in said order as viewed from the front side toward the rear side of the backlight unit (Specification at page 2, lines 20-24)(all of these elements as equivalent to Applicant's "a panel unit including a LCD panel and a driver circuit for driving said LCD panel ... a backlight including a plurality of optical components consecutively mounted on said LCD panel.").

APA does not appear to explicitly specify a housing for receiving therein said panel unit and said backlight, said housing including a front housing member formed as a frame and at least one rear housing member covering lateral and rear sides of said backlight and said panel unit as a whole, said front housing member and said rear housing member being coupled together via a coupling structure.

However, turning to Kim, Kim teaches and discloses a flat display module housing assembly and shows in Figure 6 a front housing member formed as a frame (100), and at least one rear housing member (200) in the shape of a box that upon coupling with the front housing member (100) covers lateral and rear sides of both a backlight 1a and an LCD panel 1b – collectively taken as reference item 1 which is a flat display module. Front (100) and rear (200) housing members are coupled together via positioning parts (220), fastening bosses (230), screw holes (231), fastening holes (130) and fastening members (320).

Art Unit: 2871

Kim teaches that the flat display module housing assembly provides the following benefits: (1) it provides for direct assembly of a display module to a system display housing without the use of a case (thereby reducing the number of parts required for assembly), (2) weight and thickness of the overall assembled product can be reduced thus enabling a light-weight and thin display system and (3) workability is improved thereby reducing cost (Column 4, Lines 55-62).

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystal display devices at the time the invention was made to modify APA in view of Kim for: (1) direct assembly of a display module to a system display housing without the use of a case (thereby reducing the number of parts required for assembly), (2) reduced weight and thickness of the overall assembled product thus enabling a light-weight and thin display system and (3) improved workability thereby reducing cost (Column 4, Lines 55-62).

As to claim 2, APA discloses that the LCD module may further include an interface IC for transferring data between the driver IC and a personal computer and a power circuit for supplying electric power to a lamp in a backlight unit (Specification at pages 1 and 2, lines 23-25 and 1-4 respectively).

As to claim 3, APA discloses that the panel unit and backlight are a combination and received in a housing as a unified structure (Specification at page 2, lines 1-6).

Please note that the Examiner is not sure as to what Applicant means by "said rear housing member is swiveled with respect to said front housing member to cover said lateral and rear sides of said backlight and said panel unit" because if the rear housing member is swiveled with respect to the front housing member than it seems as if the housing members would be

Art Unit: 2871

offset from each other and thus unable to cover lateral and rear sides of the backlight and panel unit.

Because Kim teaches housing members akin to those of Applicant's, then the Examiner presumes that the limitation recited in claim 3 is also met by Kim. Please see the claim Objection above.

As to claim 4, Kim (Figure 6) discloses a plurality of coupling members on the rear housing member for coupling to the front housing member.

As to claim 5, Kim illustrates (Figure 6) "L-shaped" brackets (220) on the rear housing member for coupling to the front housing member. This is considered as a coupling member bent substantially at a right angle.

As to claim 6, the coupling members of Kim (Figure 6) are integrated into the housing assembly.

As to claim 7, LCD coupling parts may be made of either plastic or metal depending upon manufacturing needs and convenience.

As to claim 8, Kim illustrates that one of the coupling members is in the shape of a bracket (flexible joint)(See Figure 6).

As to claim 9, one of the coupling members comprises screws (Figure 6).

As to claims 10-12, the coupling members of Kim have various configurations as noted.

As to claims 13-14, Figure 5A of Kim shows the front housing (100) with a plurality of fasteners (ribs) that when combined with the rear housing (200) both housings mutually align with each other. The completed Kim device has housings aligned with each other.

Art Unit: 2871

As to claims 15-19, Applicant's recited method steps for fabricating a liquid crystal display device would have been obvious to one of ordinary skill in the art of liquid crystal display devices in view of structures as taught and disclosed by APA in view of Kim for: (1) direct assembly of a display module to a system display housing without the use of a case (thereby reducing the number of parts required for assembly), (2) reduced weight and thickness of the overall assembled product thus enabling a light-weight and thin display system and (3) improved workability thereby reducing cost (Column 4, Lines 55-62).

Art Unit: 2871

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289.


The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeanne Andrea Di Grazio
Patent Examiner
Art Unit 2871

JDG


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER